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November 13, 2006



**American
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Dr. Charles M. Auer
Director
Office of Pollution, Prevention and Toxics
EPA
Washington, DC 20460

Sent Via Email

Dear Dr. Auer:

I am responding to your September 29, 2006 letter to the Fatty Nitrogen Derivatives (FND) Nitriles Panel Manager regarding the submission of its final data package. Please note that I have replaced the previous Panel Manager, Sonny Maher. Your letter indicates that the Nitriles Panel has not responded to EPA's comments.

The FND Nitriles Panel submitted its response to EPA's comments on September 8, 2005. The cover letter and response document are attached.

If you require additional information or clarification, please contact me at (703) 741-5605 or nancy_sandrof@americanchemistry.com

Sincerely,

Nancy Sandrof
FND Nitriles Panel Manager

cc: Diane Sheridan
FND Nitriles Panel



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**Response to
EPA Comments on Chemical RTK HPV Challenge Submission:
Fatty Nitrogen Derived Nitriles Category**

2006 NOV 28 PM 1: 20

August 12, 2005

Summary of EPA Comments

The sponsors, the Fatty Nitrogen Derivatives Panel Nitriles Task Group of the American Chemistry Council, submitted a test plan and robust summaries to EPA for the fatty nitrogen derived (FND) nitriles category dated December 29, 2003. This category contains 14 sponsored substances. EPA posted the submission on the ChemRTK HPV Challenge Web site on February 23, 2004.

EPA has reviewed this submission and has reached the following conclusions:

1. **Category Justification.** The grouping of 12 of the 14 nitriles into a single category is generally supported on the basis of structure and the available physicochemical, environmental fate and health effects data. However, additional information is needed to demonstrate that unsaturated elements in the alkyl chains of several category members do not significantly alter toxicity. The test plan does not provide adequate support for inclusion of the two 3-alkylaminopropanenitrile category members.
2. **Physicochemical Properties.** The submitter needs to provide additional data for melting point, vapor pressure, and water solubility.
3. **Environmental Fate.** EPA agrees with the submitter that there are sufficient data for category members for photodegradation and stability in water. Additional data are needed for biodegradation. EPA recommends that the submitter estimate the fugacity of representative components of the coco, tallow, and soya nitriles.
4. **Health Effects.** Adequate data are available for acute toxicity and gene mutations for the category and EPA agrees with the submitter's proposal to conduct testing for chromosome aberrations and reproductive and developmental toxicities. However, the submitted information is inadequate to satisfy the requirements for the classification of these chemicals as closed system intermediates (CSI) eligible for reduced testing in the HPV Challenge Program. Unless additional information is provided to support the CSI claim, the submitter needs to address repeated-dose toxicity for the category. Testing is also needed on a category member having unsaturated alkyl groups.
5. **Ecological Effects.** EPA agrees with the submitter that, for the alkyl nitriles, adequate data exist for all ecological endpoints for the purposes of the HPV Challenge Program. Data for the two alkylaminonitriles are not adequate.

EPA requests that the submitter advise the Agency within 90 days of any modifications to its submission.

General Response: The FND Nitriles Task Group is aware that it does not represent all manufacturers but, as clearly stated in the original Test Plan, the members of the Task Group reviewed their company practices and concluded their use of the FND Nitriles complies with the definition for Closed System Intermediates (CSI).

The FND Nitriles Category chemicals are all mixtures of long-chain hydrocarbon substituted nitriles. They are produced from natural oils many of which are components of the human diet. Because they are mixtures and have surfactant properties, except for the water solubility studies proposed below, the precise measurement of physical/chemical properties within the scope of the HPV Challenge Program is not practical or necessary.

Based on the CSI status, the resulting limited exposure potential, the structural and functional similarities, and the fate and effects information, the Task Group reiterates its belief that the category for the FND Nitriles is appropriate and adequate to meet the scope of the HPV Challenge Program. Therefore, no further Category or Test Plan development is warranted and the Task Group plans to complete its commitment under the HPV Challenge Program by conducting the testing as indicated in the original submission.

EPA Comments on the FND Nitriles Category Challenge Submission

Category Definition

The Fatty Nitrogen Derived (FND) Nitriles category includes 12 long-chain alkyl nitriles ranging in carbon number from C6 to C22 and two long chain nitriles derived from 3-aminopropanenitrile. Four of the nitriles are single chemicals; the remaining eight are mixtures. The single chemical members with saturated alkyl groups are dodecanenitrile (CAS No. 2437-25-4), hexadecanenitrile (CAS No. 629-79-8), and octadecanenitrile (CAS No. 638-65-3); 9-octadecenitrile (CAS No. 112-91-4) has one olefinic bond. The eight members that are mixtures contain either saturated alkyl nitriles [hydrogenated tallow nitriles (CAS No. 61790-29-2), C16-18 nitriles (CAS No. 68002-65-3), and C16-22 nitriles (CAS No. 68153-02-6)] or a combination of saturated and unsaturated alkyl nitriles [coco nitriles (CAS No. 61789-53-5), tallow nitriles (CAS No. 61790-28-1), C16 and C18 unsaturated nitriles (CAS No. 68002-64-2), C14-16 and C16-18 unsaturated nitriles (CAS No. 68513-04-2), and soya nitriles (CAS No. 68514-67-0)]. The unsaturated alkyl nitrile mixtures contain 1 to 3 sites of unsaturation in the hydrocarbon chain. The category also includes derivatives of 3-aminopropanenitrile: 3-[(Z)-9-octadecenylamino]propanenitrile (CAS No. 26351-32-6); and a mixture of N-tallow derivatives of 3-aminopropanenitrile (CAS No. 68784-70-3).

While the CAS number identities of the category members are clearly specified, more information on the carbon number ranges and number of double bonds in the R groups of CAS Nos. 68002-65-3, 68153-02-6, 68002-64-2), and 68513-04-2 would be helpful.

RESPONSE: The Task Group understands the reviewer's preference for additional information regarding the chain lengths and degree of unsaturation in these chemicals. However, such information is not available for these types of mixtures. Based on the production processes ('cuts' of more complex mixtures or blends of other FND nitriles), other chemicals/mixtures in the FND Nitriles Category will contain carbon chain substituents with these same chain lengths and degree of unsaturation.

Category Justification

The submitter's rationale for grouping the fourteen fatty nitrogen derived (FND) nitriles into one category is based on structural similarities and the composition of the alkyl portions of category members that result in surfactant-like properties with similar physicochemical properties, environmental fate and toxicities. The submitter states that differences in chain length and degree of unsaturation among category members are expected to have little impact on the fate and effects of these substances. The submitter supports this rationale with data on the single chemical nitriles with hydrocarbon chain lengths of C12 to C18. In addition, the submitter reports that alkyl nitriles derived from natural oils (e.g., coco, tallow and soya) with carbon number ranges of C8-C18 have toxicological properties similar to the single chemical alkyl nitriles. The submitter thus concludes that "there are no significant differences among the chemicals in the category that reasonably can be expected to result in differences in the HPV/Screening Information Data Set (SIDS) endpoints."

Overall, the grouping of the twelve alkyl nitrile substances into a single category is supported on the basis of structure and the available physicochemical, environmental fate, health effects and ecological effects data. However, several of the proposed members have unsaturated alkyl elements that may alter toxicity to an unknown degree. The acute toxicity and mutagenicity information supplied are insufficient to support the contention that unsaturation has no effect on the range of health endpoints. Additional toxicity or metabolism data are therefore needed to demonstrate similarity of toxic action between members with and without unsaturated alkyl groups to support the proposed approach.

RESPONSE: The Task Group's conclusion that chain length has no impact on toxicity of the FND Nitriles category chemicals is based on three principles:

- 1) The FND Nitriles Category Chemicals are intermediate chemicals resulting from the reaction of Aliphatic Fatty Acids (AFA) with nitrogen. The aliphatic chain for the higher AFA (C16 to C22) may be either saturated or unsaturated with one or more carbon-carbon double bonds (mono / polyunsaturated). AFA are derived from natural oils and have a long history of use in foods, primarily in the form of various food oils. There is a significant body of toxicity data available in the scientific literature that establishes the low order of toxicity of AFA. Summarizing these data is outside the scope of this HPV commitment. Many of the AFA have been accorded Generally Recognized As Safe (GRAS) status by the U.S. Food and Drug Administration. These products ultimately release fatty acids following lipase catalyzed hydrolysis in the body and break down naturally to fatty acids and fatty acid salts in the environment. Therefore, there appears no reasonable expectation that the chain lengths and/or degree of unsaturation of the hydrocarbon chains for the FND Nitriles would impart toxic properties.
- 2) The ultimate use of the FND Nitriles is for production of FND Amines (see separate FND Amines HPV Challenge Program submission). Thus, these three groups of chemicals (AFA, FND Nitriles, and FND Amines) are structurally similar. Neither the AFA nor the FND Amines have been proven toxic to mammals except at high doses (e.g. oral LD50 values are generally greater than 2000 mg/kg bw and often much higher when higher doses are tested). The FND

Nitriles and Amines are known to be toxic to aquatic organisms, due to their surfactant properties.

- 3) The weight of evidence for the environmental fate and toxicity data for the FND Nitriles and other FND Category chemicals (amines, amides, cationics) demonstrate a lack of effect from the different chain lengths and/or degree of saturation. Therefore, the Task Group reiterates that there appears no reasonable justification for expecting differences in the environmental toxicity or mammalian toxicity of the FND Nitriles Category chemicals based on their chain lengths or degree of unsaturation.

A serious problem with the proposed category is that two members, 3-[(Z)-9-octadecenyl- amino]-propanenitrile and *N*-tallow derivatives of 3-aminopropanenitrile, differ structurally from other members. The estimated physicochemical data provided by the submitter suggest that the neutral forms of these alkylaminonitriles have similar properties to the alkyl nitrile members. However, these two nitriles are expected to be protonated at neutral pH and therefore will have a greater hydrophilicity than the alkyl nitrile members. This can result in environmental and toxicological properties that differ significantly from the properties of the alkyl nitriles. No experimental data were submitted for these two members. Consequently, the information provided by the submitter in the test plan is insufficient to support the inclusion of these two members in the FND nitriles category.

RESPONSE: The Task Group agrees that further information on the water solubility characteristics for the category is within the scope and intent of the HPV Challenge Program evaluation. Therefore, the Task Group will conduct testing on the water solubility of Dodecanenitrile (CAS RN 2437-25-4) and Propanenitrile, 3-(9-Octadecenylamino)- (CAS RN 26351-32-6). These chemicals are selected based on the following:

- 1) Dodecanenitrile is the lowest molecular weight member of the category and would be expected to be the most soluble. The other members of the group are anticipated to be less soluble.
- 2) Testing propanenitrile, 3-(9-Octadecenylamino)- will provide information on whether protonation can make a significant contribution to the water solubility of the Propanenitrile members of the Category.
- 3) Both chemicals can be obtained in a more "pure" form than the other mixtures. It should be noted, however, that the results of these studies will only be estimates of the solubility because neither chemical is "pure".

It is anticipated that neither of these chemicals will show significant water solubility. However, if the protonation of the propanenitrile material provides for higher solubility, these chemicals will then have properties similar to the FND Cationic Category chemicals (see separate HPV Challenge Program submission). These types of charged substances in the environment instantaneously form complexes with naturally occurring negatively charged constituents in sewage, soils, sediments and with dissolved humic substances in surface waters. This complexation behavior

results in reduced bioavailability. Therefore, the toxicity of the molecules depends on the overall bioavailability in the test procedures. The Task Group reiterates support for the conclusion that these chemicals are toxic to aquatic organisms based on their surfactant properties (when available to the organisms). No further aquatic toxicity appears warranted. Similarly, the FND Cationic chemicals are shown to be minimally toxic to mammals similar to the non-soluble FND chemicals from other categories (amines, amides, nitriles). Therefore, should protonation result in significant differences in solubility for the propanenitrile material, no expected difference in toxicity appears scientifically justified and testing beyond that proposed for the FND Nitriles category is not warranted for purposes of the HPV effort.

Test Plan

Physicochemical Properties (melting point, boiling point, vapor pressure, partition coefficient and water solubility)

The data provided by the submitter for boiling point and partition coefficient are adequate for the purposes of the HPV Challenge Program.

Melting Point. For this endpoint, the submitter provided measured data for four chemicals—octadecane-nitrile, 9-octadecenitrile, coco nitriles, and tallow nitriles—and estimated data for several other category members. Because of the wide range of measured values (-22 °C to 41 °C), extrapolation to other category members is unreliable. Furthermore, estimated melting point values are not adequate for the purposes of the HPV Challenge Program. The submitter needs to provide measured melting point data for the remaining category members.

RESPONSE: All of the FND Nitriles Category chemicals are, more or less, mixtures of various chain lengths. Therefore, they have no true melting point (i.e., each component of the mixture melts at a different temperature). In addition, OECD Guideline 102 states that it is inappropriate to determine the melting point of chemicals with variable composition (e.g., resulting from the use of natural oils) stating: "*The melting point of a substance is considerably affected by impurities.*" The approximate melting points provided in the Test Plan appear adequate for describing the physical character of these chemicals for purposes of the HPV effort.

Vapor Pressure. Except for coco nitriles and tallow nitriles, the submitter provided estimated data for the category members. The estimated values provided for C16 and C18 unsaturated nitriles, C16-18 nitriles, and C14-18 and C16-18 unsaturated nitriles are not adequate for the purposes of the HPV Challenge Program because they are greater than the cutoff value of 1×10^{-5} Pa. The submitter needs to provide measured vapor pressure data for these chemicals.

RESPONSE: All of the FND Nitriles Category chemicals are, more or less, mixtures of various chain lengths. When considering the value/validity of vapor pressure measurements the following need to be considered:

- 1) These are large complex molecules with long-chain hydrocarbons that are non-volatile and difficult to measure.

- 2) OECD Guideline 104 is inappropriate for determining vapor pressure for mixtures because different components might volatilize at different rates. Further, the lowest measurable value for the methods specified in the guideline is 10^{-5} Pa (10^{-7} hPa). Although model predictions in some cases are slightly greater than this value, these model values are unlikely to be accurate and the vapor pressures of all of the FND Nitrile chemicals would be expected to be lower than 10^{-7} hPa.
- 3) One of the important uses of vapor pressure in the HPV Challenge Program is for the determination of environmental fate (i.e., fugacity) using MacKay-type modeling. This model is insensitive to vapor pressures below approximately 10^{-4} hPa, giving essentially the same predicted environmental distribution with vapor pressures over many orders of magnitude below this value. Thus identification of vapor pressures of the FND Nitriles would not improve the output of the Fugacity model.

Therefore, the approximate vapor pressure values provided in the Test Plan are adequate for describing the physical character of these chemicals since determination of more precise values is not practical or necessary.

Water Solubility. The submitter reported that octadecanenitrile (CAS No. 638-65-3) and 9-octadecene-nitrile are "insoluble" in water, that coco nitriles are "practically insoluble" in water, and that tallow nitriles are "not soluble". Such qualitative statements unsupported by quantitative data are not adequate for the purposes of the HPV Challenge Program. The estimated data provided by the submitter for seven of the other category members suggest that there are components in these substances with water solubilities above the measured data threshold value of one ppb. Therefore, the use of estimated data is inadequate for defining the water solubilities of these alkyl nitrile mixtures. Instead, locating measured values for chemicals representing the most soluble components of the mixtures and adding the information to the summaries would be adequate for the purposes of the HPV Challenge Program.

RESPONSE: See discussion above regarding proposed testing for water solubility. The "threshold value of one ppb" is important to the evaluation of chemicals in the HPV Challenge Program only in regard to the types of studies used to determine potential aquatic toxicity. For the FND Nitriles (and other chemicals with surfactant properties) this "threshold" is of little relevance because aquatic toxicity results from the physical effects of the surfactants. Therefore, the Task Group reiterates support for the conclusion that these chemicals are toxic to aquatic organisms based on their surfactant properties when available to the organisms. No further testing or data development for individual components of the mixtures appears warranted.

Environmental Fate (photodegradation, stability in water, biodegradation, fugacity)

The data provided by the submitter for photodegradation are adequate for the purposes of the HPV Challenge Program.

Stability in water. EPA agrees with the submitter's conclusion that these chemicals are generally not hydrolyzable. However, the submitter needs to include in the robust summary a technical discussion of the basis for this conclusion.

RESPONSE: A technical discussion describing the basis for the conclusion that these chemicals are not hydrolysable will be added to the robust summaries in the final submission.

Biodegradation. The data provided for n-alkyl nitrile mixtures generally support the conclusion that long chain (here defined as C10 or greater) n-alkyl nitriles are readily biodegradable. However, the submitted data for dodecanenitrile and the coco nitriles mixture, of which C12 is the major component, appear to be inconsistent. According to the submitted data, dodecanenitrile underwent 15 % theoretical oxygen demand (ThOD) in 28 days. However, coco nitrile, which consists of 44-53% C12, in two separate studies underwent 43% and 71% theoretical carbon dioxide demand (ThCO D) in 28 days. Substances with alkyl chains shorter than C12 make up a significant mole fraction of the coco nitriles. Because biodegradation rates may be different for these shorter alkyl chains, the submitter needs to submit biodegradation data for one or more of the shorter-chain components (e.g., the C8 nitrile). Additionally, no data were submitted for derivatives of 3-aminopropanenitrile, which differ in structure sufficiently from the other long-chain alkylnitriles to suggest that their biodegradability may also differ.

RESPONSE: Long-chain hydrocarbons (aliphatic fatty acids) such as those in the FND Nitrile and other FND categories (amines, amides, nitriles) have been shown to be rapidly degraded by microorganisms through β -oxidation (see standard biochemistry texts; e.g. Biochemistry, Voet and Voet, eds. Second Edition, p. 668, 1995). Therefore, the FND chemicals are 'inherently' or 'readily biodegradable'. A frequently encountered problem with all of the FND chemicals (amines, amides, cationics, nitriles) is the water insolubility and the surfactant properties associated with these chemicals provide for inconsistent results in testing. As shown in the robust summaries, the FND Nitriles are biodegradable. Shorter chain hydrocarbons may degrade more rapidly but these exist only in the coco-derived chemicals and do not make up a significant enough fraction of the total hydrocarbon chain distribution to change the overall conclusions (as shown by the available data). Because the biodegradation of these types of chemicals is dictated by the degradation of the long-chain hydrocarbons, the propane nitriles, as with all FND chemicals, are expected to be readily or inherently biodegradable.

Fugacity. The data provided by the submitter are adequate for the purposes of the HPV Challenge Program except for coco, tallow, and soya nitriles and N-tallow derivatives of 3-aminopropane-nitrile. For coco nitriles, the carbon number range of C6-18 is wider than that of the other category members. EPA therefore recommends that the submitter run Level III fugacity estimations for C8, C12 and C18 model compounds as representative chemicals of the coco nitriles. For tallow nitriles, EPA recommends that the submitter run Level III fugacity estimations for C16 and C18 model compounds. For soya nitriles, EPA recommends that the submitter run estimations for C16 and C20 model compounds. For the N-tallow derivatives of 3-aminopropanenitrile, one issue is suitable representative components; another is that the neutral forms of these compounds may partition differently from the protonated forms, which are likely to predominate at environmental pHs. This latter feature of the N-tallow derivatives of 3-aminopropanenitrile also renders their inclusion in the FND Nitriles category questionable.

RESPONSE: Additional modeling will be conducted and added to the robust summaries as requested. See discussion above on water solubility and related toxicity for the propanenitrile materials.

Health Effects (acute toxicity, repeated-dose toxicity, genetic toxicity, and reproductive/developmental toxicity)

The data provided by the submitter for acute toxicity and gene mutations are adequate for the purposes of the HPV Challenge Program.

Additional information is needed to demonstrate similarity of health effects among members with and without unsaturated alkyl groups to support the proposed category. Also, it is unknown if the two 3-alkyl-aminopropanenitriles have toxicities similar to the alkyl nitriles. The 3-alkylaminopropanenitriles are anticipated to be more water soluble than the alkyl nitriles and will likely partition differently in the organism. Therefore, data are needed for the two 3-alkylaminopropanenitriles to support their inclusion in the category.

RESPONSE: See discussion on saturated and/versus unsaturated carbon chains above. See discussion above related to water solubility and toxicity of the propanenitrile materials.

The submitter claims the FND nitriles are closed system intermediates (CSI) and are eligible for reduced testing in the HPV Challenge Program. The Guidance for Testing Closed System Intermediates for the Challenge Program <http://www.epa.gov/chemrtk/guidocs.htm> allows for a reduced testing protocol provided certain criteria are met. The information required to support a "closed-system intermediate" claim must address the following:

I. Site information

A. Number of sites.

B. Basis for "closed process" conclusion at each site. 1) Process description. 2) Monitoring data showing no detection. 3) In the absence of monitoring data, the basis for believing that releases do not occur.

C. Data on "presence in distributed products."

II. Information on transport (mode, volume, controls, etc)

III. A data search showing that the chemical is not present in other end products.

EPA believes that the submitted information is inadequate to satisfy the requirements for classification of these chemicals as (CSIs) eligible for reduced testing in the HPV Challenge Program for the following reasons:

IA. *Number of sites:*

The CSI claim in the test plan does not cover all U.S. manufacturing sites for the subject chemicals. A review of the TSCA Inventory Update Rule (IUR) information submitted to EPA in 2002 and 1998 identified other producers of the chemicals in this category in addition to members of the Nitriles Task Group.

IB and IC. *Basis for closed process conclusion at each site. Process description. Monitoring data showing no detection. In the absence of monitoring data,*

the basis for believing that releases do not occur. Data on "presence in distributed products":

The manufacturing process is not described in sufficient detail. According to the test plan, reaction vessels used to produce FND ether nitriles category chemicals are part of multi-purpose, closed system operations. The process description is not sufficiently detailed to provide a reasonable basis to conclude that the process is closed. In addition, the test plan did not include monitoring data showing no detection of category members or their unidentified downstream products in any media or a statement providing the basis for believing, in the absence of data, that release and exposure to the chemicals in question do not occur. The test plan also states that wastewater generated during periodic equipment cleaning is treated on-site or incinerated, but information on the concentrations of the subject chemicals in wastewater discharges is not provided.

II. If transport occurs, information on the mode of transport, volume, type of consignment, and

controls during transport and transfer at dispatching and receiving sites:

Transfer descriptions lacked details. The submitter needs to address handling practices at all sites.

III. Supporting evidence that the chemical is not present in other end-products.

Analytical data would help substantiate that the chemical is not present in other end-products. Odor threshold data would also be supportive.

Unless additional information is provided to support the "closed system intermediate" claim, the submitter needs to address repeated-dose and reproductive health effects endpoints for the purposes of the HPV Challenge Program.

RESPONSE: The FND Nitriles Task Group recognizes that its members are not the only manufacturers. The Test Plan clearly states that the members of the Task Group were taking steps to check use of the nitriles as CSI chemicals. While it is appreciated that more detailed data would assist, it is not industry practice to collect such information on chemicals that are highly reacted intermediates. Several times during the course of the Test Plan development, the Task Group reviewed within each company that their processes comply with the definition of CSI and reiterate that conclusion.

EPA agrees with the submitter's proposal to conduct testing on dodecanenitrile for chromosome aberrations (OECD TG 473) and reproductive/developmental toxicities (OECD TG 421), but recommends a combined repeated-dose and reproductive/developmental toxicity screening test (OECD TG 422) instead of the proposed OECD TG 421. The submitter also needs to conduct these same tests and an in vitro gene mutation assay with an appropriately chosen category member having unsaturated alkyl groups, or provide adequate information demonstrating similarity of toxic action between members with and without unsaturated alkyl groups.

RESPONSE: The FND Nitriles Task Group agrees that the OECD TG 422 study will provide more data and will change the Test Plan accordingly. However, the Task

Group states that this change in no way affects its conclusions that the FND Nitriles produced by the Task Group meet the criteria of 'closed system intermediates' and that the original proposal for the OECD TG 421 study is, therefore, adequate to meet the scope of the HPV Chemical Challenge Program. The Task Group believes that, based on the overall knowledge of the toxicity of the precursors (AFA) and derivatives (FND amines) of the FND Nitriles as well as other FND chemicals (amides, cationics), conduct of a single OECD TG 422 study will provide adequate information regarding the limited mammalian toxicity for the category, and further underscore the similarity of the toxicity among these FND chemicals. As noted above, there is adequate evidence to show that the impact of chain length and degree of unsaturation is negligible. Dodecanenitrile will be tested in the OECD TG 422 and 473 protocols.

Ecological Effects (fish, invertebrates, and algae)

Alkyl nitriles. The data provided by the submitter for the ecological endpoints (i.e., fish, daphnia, and green algae) are adequate for the purposes of the HPV Challenge Program.

3-Alkylaminopropanenitriles. No measured ecotoxicity data were submitted for these two substances that would support their inclusion in the FND nitriles category or their characterization by alkyl nitrile data.

RESPONSE: See discussion of water solubility and ecotoxicity above.

Specific Comments on the Robust Summaries

Generic comments

In general, the robust summaries do not provide sufficient detail. The submitter is encouraged to review the guidance on developing robust summaries (available at: <http://www.epa.gov/chemrtk/robsumgd.htm>) and revise the robust summaries as appropriate.

RESPONSE: The Robust Summaries were prepared following the guidance of the HPV Challenge Program. We have reviewed the robust summaries in order to help ensure the available information was adequately summarized. Based on the review effort, the Panel concludes the data provided in the Robust Summaries represent the available information.

Health Effects

Acute toxicity. Missing information in the submitted robust summaries includes test substance purity, number and sex of animals per dose, and range or 95% confidence intervals for LD50s.

Genetic toxicity. Although the studies were conducted following OECD guidelines and complied with GLP, omitted information in the robust summaries includes test substance purity, cytotoxic concentration, number of colonies per concentration examined, criteria for positive results, and statistical results.

RESPONSE: The Robust Summaries were prepared following the guidance of the HPV Challenge Program. We have reviewed the robust summaries in order to help ensure the available information was adequately summarized. Based on that review effort, the Panel concludes the data provided in the Robust Summaries represent the available information.

Follow-up Activity

EPA requests that the submitter advise the Agency within 90 days of any modifications to its submission.

RESPONSE: Following completion of the additional testing indicated above, the FND Nitriles Task Group will resubmit the appropriate Test Plan and Robust Summaries.

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2006 NOV 28 PM 1: 20

September 8, 2005

Via Messenger on CD-Rom

Stephen L. Johnson, Administrator
U.S. Environmental Protection Agency
P.O. Box 1473
Merrifield, VA 22116

Re: Fatty Nitrogen Derivatives Panel Nitriles Task Group, Consortium No.
HPV Chemical Challenge Program Response to EPA Comments on Test Plan
and Robust Summaries

Dear Administrator Johnson:

The Fatty Nitrogen Derivatives Panel Nitriles Task Group of the American Chemistry Council is pleased to submit its response to EPA Comments on the HPV Chemical Challenge Program Fatty Nitrogen Derivatives Nitriles Category submission. The Nitriles Task Group includes the following member companies that are sponsoring these chemicals under the Voluntary HPV Chemical Challenge Program: Akzo Nobel Chemicals Inc.; Chemtura Company and Degussa Corporation. The Fatty Nitrogen Derivatives Panel Nitriles Task Group submitted its test plan and robust summaries to EPA on December 29, 2003.

If you require additional information, please contact Nancy Sandrof, Fatty Nitrogen Derivatives Panel Manager at (703) 741-5605 or nancy_sandrof@americanchemistry.com.

Sincerely yours,

Attachment

cc: Nitriles Task Group
Christina Franz, ACC
Jim Keith, ACC